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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,975	10/28/2003	Lang H. Nguyen	03089	4434

7590 04/19/2007  
Robert J. Follett, Esq.  
CABOT CORPORATION  
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157 Concord Road  
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EXAMINER
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BERNSHTEYN, MICHAEL

ART UNIT	PAPER NUMBER
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1713

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/694,975

Applicant(s)

NGUYEN, LANG H.

Examiner

Michael Bernshteyn

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,10-12 and 16-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,10-12 and 16-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

Art Unit: 1713

### **DETAILED ACTION**

1. This Office Action follows a response filed on February 12, 2007. Claims 1, 22 and 31 have been amended; claims 2, 7-9 and 13-15 have been cancelled; none of the claims have been added.
2. Claims 1, 3-6, 10-12 and 16-41 are active.

#### ***Claim Rejections - 35 USC § 102***

3. The text of this section of Title 35 U.S.C. not included in this action can be found in a prior Office Action.

#### ***Claim Rejections - 35 USC § 103***

4. The text of this section of Title 35 U.S.C. not included in this action can be found in a prior Office Action.
5. Claims 1, 3-6, 10-12, 16-22 and 31-35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Martin et al. (U. S. Patent Application Publication 2003/0191231), for the rationale recited in paragraph 2 of Office Action dated on August 11, 2006, and comments below.
6. Claims 23-30 and 36-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin et al. in view of Johnson et al. (U. S. Patent 5,837,045), for the rationale recited in paragraph 3 of Office Action dated on August 11, 2006, and comments below.

#### ***Response to Arguments***

7. Applicants traverse the rejection of claims 1-22 and 31-35 under 35 U.S.C. §102(b) as being anticipated by Martin et al. (U. S. Patent Application Publication

Art Unit: 1713

2003/0191231). Applicant's arguments have been fully considered but they are not persuasive.

8. Applicants contend that Martin et al. does not disclose a dispersant composition comprising these two distinct components. Rather, Martin et al. describes a composition, which includes a crosslinkable polyester oligomer. This single component "preferably contains a sufficient concentration of bound hydrophilic water-dispersing groups" (see paragraph [0062]), which can be "ionic water-dispersing groups or non-ionic water dispersing groups" (see paragraph [0063]). An example of a preferred non-ionic water-dispersing group is a polyalkylene oxide group (see paragraph [0063]), and an example of a preferred ionic water-dispersing group is a carboxylic acid group (see paragraph [0064]). However, there is no disclosure anywhere in Martin et al. of the use of both a: water-insoluble polyalkylene oxide surfactant and a polymer comprising at least one salt of a carboxylic acid group. There is no disclosure of either a polymer comprising at least one salt of a carboxylic acid group or a water-insoluble polyalkylene oxide (page 15, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs).

It is noted that Martin discloses that preferred non-ionic water-dispersing groups are **polyalkylene oxide groups**, more preferably **polyethylene oxide groups**. A small segment of the polyethylene oxide group can be replaced by **propylene oxide segment(s)** and/or **butylene oxide segment(s)**, however the polyethylene oxide group should still contain ethylene oxide as a major component (page 4, [0062]-[0063]). These components can be readable as non-ionic surfactant i) in instant claim 1.

Art Unit: 1713

Martin discloses that preferably at least 30%, more preferably at least 60%, most preferably at least 90% and especially at least 94% by weight of the dispersed polymer(s) is present as **insoluble** polymer over the whole pH range (page 7, [0090]), and exemplified **NeoCryl BT-24** (acrylic emulsion polymer) (page 15, [0197]), which is also disclosed in the specification (Example 1, page 13, [0044]). This component can be readable as component ii) in instant claim 1.

Therefore, all the limitations of instant claim 1 are expressly met by Martin.

9. Applicants contend that Martin's aqueous composition comprises the disclosed crosslinkable, water-dispersible polyester oligomer(s) (see paragraph [0018]) and preferably includes a dispersed polymer that is not the polyester oligomer (see paragraph [0088]). Thus, a polyester oligomer is combined with a dispersed polymer to further improve the provision of a binder system for providing an aqueous coating composition with the target advantageous properties (see paragraphs [0092]-[0094]). This composition can be used as the principle component in a coating formulation, which includes various cosolvents (see paragraph [0132]).

10. Applicants contend that as noted by the Examiner, types of dispersed polymers of Martin et al. include acrylic emulsion polymers, such as those shown in the Examples of the present invention. However, these polymers are examples of water-based resins used in the disclosed aqueous coating compositions (see paragraphs, [0038]-[0039] of the present specification). Thus, to one skilled in the art, Martin et al. does not disclose a dispersant composition that can be used to prepare a pigment composition or an aqueous coating composition, as in the

Art Unit: 1713

present invention, but rather describes an aqueous coating composition comprising a water-based resin that can be further formulated with additional cosolvents (page 16, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs).

11. It is well settled that "an applied reference may be relied upon for all that it would have reasonably suggested to one of ordinary skill in the art, including not only preferred embodiment, but less preferred and even non preferred". *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989).

12. Applicants traverse the rejection of claims 23-30 and 36-41 under 35 U.S.C. § 103(a) as being unpatentable over Martin et al. in view of Johnson et al. (U. S. Patent 5,837,045). Applicant's arguments have been fully considered but they are not persuasive.

13. Applicants contend that claims 23-30 depend directly or indirectly from claim 22. Applicant believes that claim 22 is patentable over Martin et al. since this reference does not disclose, teach, or suggest the recited dispersant composition and therefore also does not disclose, teach, or suggest a pigment composition comprising this dispersant composition.

Furthermore, Johnson et al. cannot overcome the deficiencies of Martin et al. Rather, Johnson et al. discloses a modified colored pigment comprising a pigment having attached at least one organic group, where in the organic group comprises at least one ionic group, ionizable group, or mixture thereof. As noted by the Examiner, this modified pigment is readily dispersible in a liquid vehicle with the addition of a surfactant or other dispersing aid or additive. Thus,

Art Unit: 1713

Applicant believes that, one skilled in the art would not combine the teachings of these references since there would be no motivation for using a dispersant or surfactant with the modified pigment of Johnson et al. (page 19, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs).

14. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

15. It is noted that claim 22 is not patentable for the reasons explained above for claim 1.

It is further noted that Johnson discloses a surface-modified colored pigment which includes a colored pigment having no primary amines and at least one attached hydrophilic organic group, wherein said organic group comprises a) at least one aromatic group, and b) at least one **ionic group** or **ionizable group**, or a **mixture of an ionic group or an ionizable group**. The surface-modified colored pigment, due to the hydrophilic groups on its surface, is readily dispersed in a **liquid vehicle** without the addition of a surfactant or other dispersing aid or additive. The surface-modified color pigment may be used in a variety of aqueous systems including, but not limited to, **coatings**, paints, papers, adhesives, latexes, inks, toners, textiles and fibers. In addition, **an aqueous composition** is disclosed including **water-based liquid vehicle** and the surface-modified colored pigment described above (abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the surface-modified **colored pigment** which includes at **least one attached hydrophilic organic group** as taught by Johnson in Martin's dispersant polymer composition in order to obtain the compositions which exhibit improved latency and improved water fastness (US'045, col. 4, lines 47-49). Such aqueous compositions include, for example, automotive and industrial coatings, paints, papers, toners, inks, adhesives, latexes, textiles and fibers. The surface-modified colored pigment may be tailored to provide compatibility with the particular aqueous system and provide easier, more complete dispersion, improved colloidal stability and greater color intensity and shades (US'045, col. 2, lines 1-9), and thus to arrive at the subject matter of instant claims 23-30 and 36-41.

16. It is worth to mention that Examiner has cited particular columns and line numbers or figures in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teaching in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, **to fully consider the references in entirety as potentially teaching all or part of the claimed invention**, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

17. In the light of the discussion above, the rejection of record has not been withdrawn. The rejection remains in force.



Art Unit: 1713

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bernshteyn whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 1713

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04/12/2007

  
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